

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION**

UNITED STATES OF AMERICA,

Plaintiff,

SIERRA CLUB,

Plaintiff-Intervenor,

v.

AMEREN MISSOURI,

Defendant.

Civil Action No. 4:11-cv-00077-RWS

**EXHIBIT 2 TO
PLAINTIFF UNITED STATES' NOTICE REGARDING AMEREN'S NON-
COMPLIANCE WITH THIS COURT'S REMEDY ORDER, AND REQUEST FOR
STATUS CONFERENCE**



**MISSOURI DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL PROGRAM
APPLICATION FOR AUTHORITY TO CONSTRUCT**

APCP USE ONLY	
CHECK NO.:	CHECK RECD:
CHECK AMOUNT: \$	CHECK DATE:
PROJECT NUMBER:	

All applications must be submitted with a \$100 filing fee, except amendments. An application received on or after Jan. 1, 2017, must be submitted with the following filing fee: no filing fee for an amendment; \$250 for Sections (3), (5), and (6); \$5,000 for Sections (7), (8), and (9); \$2,500 for PAL renewal. A \$50 per hour processing fee (\$75 per hour effective Jan. 1, 2017) will be assessed at the end of the review, unless no permit is required.

1.) INSTALLATION NAME Ameren Missouri Rush Island Energy Center					
2.) INSTALLATION STREET ADDRESS 100 Big Hollow Road.					
3.) INSTALLATION MAILING ADDRESS					
4.) INSTALLATION CITY Festus				STATE: MO	
				ZIP CODE 63028	
5.) COUNTY Jefferson		6.) 1/4, OF NE		7.) 1/4, OF NW	
		SECTION 4		TOWNSHIP T40	
				RANGE R7E	
7.) FINAL PRODUCT / PRINCIPLE ACTIVITY Electricity / Electric Generation					
8.) SIC CODE					
9.) PARENT COMPANY Union Electric Company dba Ameren Missouri					
10.) PARENT COMPANY MAILING ADDRESS 1901 Chouteau Ave.					
11.) PARENT COMPANY CITY St. Louis				STATE MO	
				ZIP CODE 66149	
12.) CONTACT PERSON Michael J. Hutcheson				CONTACT PERSON'S TITLE Supervisor, Air Quality Permitting and Compliance	
13.) CONTACT PERSON'S MAILING ADDRESS 1901 Chouteau Ave. PO Box 66149 mc 602					
14.) CONTACT PERSON'S CITY St. Louis				STATE MO	
				ZIP CODE 66149	
15.) CONTACT PERSON'S TELEPHONE NUMBER WITH AREA CODE 314.554.2319				16.) CONTACT PERSON'S FAX NUMBER 314.554.4182	
17.) CONTACT PERSON'S EMAIL ADDRESS mhutcheson@ameren.com					
18.) UNIFIED REVIEW Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					
19.) THIS APPLICATION IS FOR Modification or Addition to an Existing Installation <input checked="" type="checkbox"/> New Installation <input type="checkbox"/> Amendment to Existing Permit: Permit No. _____ Temporary / Pilot Plant <input type="checkbox"/>					
20.) FIPS COUNTY ID NUMBER 099				21.) PLANT ID NUMBER 099-0016	
22.) PROJECTED DATE TO COMMENCE CONSTRUCTION N/A				23.) PROJECTED DATE OF OPERATION STARTUP N/A	

APPLICANT'S CERTIFICATION STATEMENT: I certify that I have personally examined and am familiar with the information in this application and believe that the information submitted is accurate and complete. I am aware that making a false statement or misrepresentation in this application is grounds for denying or revoking the construction permit. I may also be guilty of a misdemeanor and upon conviction, may be punished by fine or imprisonment.

SIGNATURE OF RESPONSIBLE OFFICIAL 		DATE December 23, 2019	
TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL Steven C. Whitworth		RESPONSIBLE OFFICIAL'S TELEPHONE NUMBER WITH AREA CODE 314.554.4908	

OFFICIAL TITLE OF RESPONSIBLE OFFICIAL
Senior Director, Environmental Policy and Analysis
MO 780-1323 (07-16)

24.) PROJECT DESCRIPTION AND NARRATIVE

Ameren Missouri is requesting a construction permit for installation of flue gas desulfurization systems on Units 1 & 2 at the Rush Island Energy Center in accordance with the recent order of Judge Sippel of the U.S. District Court Eastern District of Missouri dated September 30, 2019. Ameren Missouri has appealed the September 30 remedy decision along with an earlier 2017 liability ruling to the Eighth Circuit Court of Appeals. In the remedy order the Court determined that wet flue-gas desulfurization constituted Best Available Control Technology (BACT) and required Ameren Missouri to "operate Rush Island Units 1 and 2 in compliance with an emissions limit that is no less stringent than 0.05 lb SO₂/mmBtu on a thirty-day rolling average". This permit application is intended to fulfill the requirements of the Court's order to apply for a PSD permit proposing wet FGD as BACT.

The timing of this submittal is required by the Court's Order but the engineering design, procurement and construction has been stayed until resolution of this matter by the Court of Appeals. Accordingly, Ameren is unable to provide the detailed design information of the FGD system including FGD process data, system layouts, or ancillary process unit information. Ameren intends to supplement this application and provide all design information necessary for MDNR to complete the application review and permit development in the future as an update to this application once the FGD design phase is completed, pending the outcome of the appeal.

The Ameren Missouri Rush Island Energy Center is located in Festus, Missouri, in Jefferson County. Rush Island has two coal-fired boilers with a nominal generating capacity of 630 megawatts (MW) gross each. The boilers each have an electrostatic precipitator (ESP) to reduce particulate matter (PM₁₀) emissions. Based on Ameren's design specification for the proposed wet FGD system at Rush Island the major components of the proposed wet FGD project will likely include the following:

- A single new chimney with two flues, one flue for each unit;
- Two spray absorber towers, one for each unit, and associated equipment (such as pumps, blowers, electrical equipment, etc.);
- Limestone unloading, storage and handling systems;
- A gypsum slurry waste handling system.

The Rush Island Wet FGD Retrofit Project assumes the use of a slurry of milled limestone as the reactant in the absorber towers. Therefore, the conceptual design as described in this application includes the construction of limestone unloading, storage and handling systems and equipment, and reactant preparation equipment (if needed). Detailed information about the proposed limestone handling system, and related material handling emissions, will be provided once final design of the scrubber system has been developed.

Emission Information for Air Construction Permit Application

Form 1.1 Process Flow Diagram for Facility According to Proposed Application

INSTALLATION NAME (A.)	FIPS COUNTY NO. (B.)	PLANT NO. (C.)
Ameren Missouri Rush Island Energy Center	099	0016

For a new installation, show the entire installation. For an addition to an existing installation, show only the new processes/equipment/emission points and begin the ID numbering where the existing EIQ emission point numbers leave off. If the application is for a modification or an addition to an existing emission point or unit, show the upstream and downstream point(s) or the equipment that this modification will affect.

The Rush Island Energy Center EGUs are pulverized coal fired boilers with a tangential low NOx burner arrangement with separated overfire air for additional NOx control. Currently, flue gas from the boilers passes over the air preheater through the cold side electrostatic precipitators (ESP) and up the stack to be exhausted. Installation of the flue gas desulfurization systems is expected to be after the ESPs for each unit and be followed by a single new chimney (with a flue for each unit).

Emission Information for Air Construction Permit Application
Form 1.3 Plant Layout Diagram

INSTALLATION NAME (A.) Ameren Missouri Rush Island Energy Center	FIPS COUNTY NO.(B.) 099	PLANT NO. (C.) 0016
Use this page or a separate sheet to provide a Plant Layout Diagram. Refer to the Permits Instruction Packet for details.		
Plant layout to be determined.		

Emission Information for Air Construction Permit Application
Form 2.0 Emission Point Information (duplicate this form as needed.)

INSTALLATION NAME (A.) Ameren Missouri Rush Island Energy Center		FIPS COUNTY NO. (B.) 099		PLANT NO. (C.) 0016			
POINT IDENTIFICATION							
POINT NO. (D.) B-1 (B-2 identical)		POINT DESCRIPTION (E.) Coal Fired Electric Generating Units					
SOURCE CLASSIFICATION CODE (SCC) (F.) 10100226		MAKE (G.) Combustion Eng.		MODEL (H.)	YEAR (I.) 1971		
STACK/VENT PARAMETERS							
STACK NO. (J.) To Be Determined		HEIGHT (FT) (K.) To Be Determined		DIAMETER (FT) (L.) To Be Determined			
TEMPERATURE (F) (M.) To Be Determined		VELOCITY (FT/MIN) (N.) To Be Determined		FLOW RATE (STANDARD CUBIC FT/MIN) (O.) To Be Determined			
OPERATING RATE/SCHEDULE							
EXPECTED ANNUAL THROUGHPUT (P.)		UNITS (Q.)	MAXIMUM HOURLY DESIGN RATE (R.) 5922		UNITS/HR (S.) mmBtu/hr		
HOURS/DAY (T.) 24		DAYS/WEEK 7		WEEKS/YEAR 52			
AIR POLLUTION CONTROLS							
DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)	Control Device Destruction/Removal Efficiency % (w.)					
		PM ₁₀	SO _x	NO _x	VOC	CO	HAPs
TBD	Wet Flue Gas Desulfurization		90-95				
DEVICE NO.	DESCRIPTION OF COLLECTION/SUPPRESSION SYSTEM (X.)						
	enclosed/ducted flue						
CALCULATION SECTION (Y.)							
POLLUTANT	EMISSION FACTOR	EMISSION FACTOR UNITS	OVERALL CONTROL EFFICIENCY	EMISSION RATE (LB/HR)	POTENTIAL EMISSIONS (TONS/YR)		
SO ₂	0.05 (Controlled)	#/mmBtu		296.1	1297		

Emission Information for Air Construction Permit Application
Form 2.1 Fuel Combustion Information (duplicate this form as needed.)

INSTALLATION NAME (A.) Ameren Missouri Rush Island Energy Center		FIPS COUNTY NO. (B.) 099	PLANT NO. (C.) 099-0016																					
COMBUSTION EQUIPMENT INFORMATION																								
POINT NO. (D.) B-1 & B-2		SCC (E.) 10100226																						
(F.) EQUIPMENT DESCRIPTION (MAKE/MODEL)		(G.) YEAR PUT IN SERVICE	(H.) MAXIMUM DESIGN RATE (MILLION BTU/HR)																					
B-1		1971	5922																					
B-2		1971	5922																					
Sum of Total Maximum Hourly Design Rates			11844																					
FUEL INFORMATION																								
(I.) FUEL TYPE																								
<table border="0"> <tr> <td>Oil</td> <td>Gas</td> <td>Coal</td> <td colspan="2">Other</td> </tr> <tr> <td><input checked="" type="checkbox"/> Distillate (Fuel Oil 1-4)</td> <td><input type="checkbox"/> Natural Gas</td> <td><input type="checkbox"/> Anthracite</td> <td colspan="2"><input type="checkbox"/> Refuse</td> </tr> <tr> <td><input type="checkbox"/> Residual Fuel Oil (5-6)</td> <td><input type="checkbox"/> LPG/Propane</td> <td><input checked="" type="checkbox"/> Bituminous</td> <td colspan="2"><input type="checkbox"/> Trade Wastes</td> </tr> <tr> <td><input type="checkbox"/> Waste Oil</td> <td></td> <td><input type="checkbox"/> Lignite</td> <td colspan="2"><input type="checkbox"/> Other (specify)</td> </tr> </table>					Oil	Gas	Coal	Other		<input checked="" type="checkbox"/> Distillate (Fuel Oil 1-4)	<input type="checkbox"/> Natural Gas	<input type="checkbox"/> Anthracite	<input type="checkbox"/> Refuse		<input type="checkbox"/> Residual Fuel Oil (5-6)	<input type="checkbox"/> LPG/Propane	<input checked="" type="checkbox"/> Bituminous	<input type="checkbox"/> Trade Wastes		<input type="checkbox"/> Waste Oil		<input type="checkbox"/> Lignite	<input type="checkbox"/> Other (specify)	
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Coal	~ 46,000,000 (each)	mmBtu																						
FUEL TOTALS AND WEIGHTED AVERAGES																								
Comments: Distillate oil for startup and coal ignition only. Units fired with bituminous and sub-bituminous coals historically.																								

Emission Information for Air Construction Permit Application

Form 2. T Hazardous Air Pollutant Information (duplicate this form as needed)

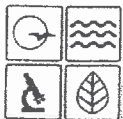
INSTALLATION NAME (A.) Ameren Missouri Rush Island Energy Center	FIPS COUNTY NO. (B.) 099	PLANT NO. (C.) 0016
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POINT NO. (D.)	SCC (E.)		
HAP CHEMICAL (F.)	CAS NUMBER (G.)	AMOUNT USED OR EXPECTED TO BE HANDLED (LBS/YEAR) (H.)	UNITS (I.)
None Handled			N/A

NOTE: Attach Material Safety Data Sheets (MSDS) for Verification

Comments:



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SIGNATURE OF RESPONSIBLE OFFICIAL 	DATE December 23, 2019
TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL Steven C. Whitworth	RESPONSIBLE OFFICIAL'S TELEPHONE NUMBER WITH AREA CODE 314.554.4908
OFFICIAL TITLE OF RESPONSIBLE OFFICIAL Senior Director, Environmental Policy and Analysis	

Emission Information for Air Construction Permit Application

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1

Form 1.2 Summary of Emission Points Affected by this Application (duplicate this form as needed)

MO 780-1323 (07-16)

Emission Information for Air Construction Permit Application
Form 1.3 Plant Layout Diagram

INSTALLATION NAME (A.) Ameren Missouri Rush Island Energy Center	FIPS COUNTY NO.(B.) 099	PLANT NO. (C.) 0016
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Refer to the Permits Instruction Packet for details.

Plant layout to be determined.

Emission Information for Air Construction Permit Application
Form 2.0 Emission Point Information (duplicate this form as needed.)

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DEVICE NO. (U.)	CONTROL DEVICE DESCRIPTION (V.)	Control Device Destruction/Removal Efficiency % (w.)					
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CALCULATION SECTION (Y.)							
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Emission Information for Air Construction Permit Application

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COMBUSTION EQUIPMENT INFORMATION

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(F.) EQUIPMENT DESCRIPTION (MAKE/MODEL)	(G.) YEAR PUT IN SERVICE	(H.) MAXIMUM DESIGN RATE (MILLION BTU/HR)
B-1	1971	5922
B-2	1971	5922
Sum of Total Maximum Hourly Design Rates		11844

FUEL INFORMATION

(I.) FUEL TYPE				
Oil <input checked="" type="checkbox"/> Distillate (Fuel Oil 1-4) <input type="checkbox"/> Residual Fuel Oil (5-6) <input type="checkbox"/> Waste Oil	Gas <input type="checkbox"/> Natural Gas <input type="checkbox"/> LPG/Propane	Coal <input type="checkbox"/> Anthracite <input checked="" type="checkbox"/> Bituminous <input type="checkbox"/> Lignite	Other <input type="checkbox"/> Refuse <input type="checkbox"/> Trade Wastes <input type="checkbox"/> Other (specify)	
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Comments:

Distillate oil for startup and coal ignition only. Units fired with bituminous and sub-bituminous coals historically.

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[illegible]

Comments:

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